



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2015-4031; Directorate Identifier 2014-SW-072-AD]

RIN 2120-AA64

Airworthiness Directives; Airbus Helicopters (Type Certificate Previously Held by Eurocopter France)

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to supersede airworthiness directive (AD) 2013-15-03 for Eurocopter France Model AS350B, AS350BA, AS350B1, AS350B2, AS350B3, AS350C, AS350D, and AS350D1 helicopters with a single hydraulic system and a certain hydraulic pump drive assembly installed. AD 2013-15-03 requires inspecting the hydraulic pump drive bearing (bearing) for leaks, rust, overheating, and condition. This proposed AD would add a requirement to grease the bearing and inspect for bronze particles in the grease, as well as change the inspection and inspection intervals of the bearing until it is replaced with an improved bearing. These proposed actions are intended to prevent hydraulic pump drive belt failure, loss of hydraulic servo assistance, and subsequent loss of helicopter control.

DATES: We must receive comments on this proposed AD by [INSERT DATE 60 days AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments by any of the following methods:

- Federal eRulemaking Docket: Go to <http://www.regulations.gov>. Follow the online instructions for sending your comments electronically.

- Fax: 202-493-2251.

- Mail: Send comments to the U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590-0001.

- Hand Delivery: Deliver to the “Mail” address between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2015-4031; or in person at the Docket Operations Office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the European Aviation Safety Agency (EASA) ADs, the economic evaluation, any comments received, and other information. The street address for the Docket Operations Office (telephone 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

For service information identified in this proposed rule, contact Airbus Helicopters, 2701 N. Forum Drive, Grand Prairie, TX 75052; telephone (972) 641-0000 or (800) 232-0323; fax (972) 641-3775; or at <http://www.airbushelicopters.com/techpub>. You may review service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy, Room 6N-321, Fort Worth, TX 76177.

FOR FURTHER INFORMATION CONTACT: Matt Wilbanks, Aviation Safety Engineer, Regulations and Policy Group, Rotorcraft Directorate, FAA, 10101 Hillwood Pkwy, Fort Worth, TX 76177; telephone (817) 222-5110; email matt.wilbanks@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to participate in this rulemaking by submitting written comments, data, or views. We also invite comments relating to the economic, environmental, energy, or federalism impacts that might result from adopting the proposals in this document. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. To ensure the docket does not contain duplicate comments, commenters should send only one copy of written comments, or if comments are filed electronically, commenters should submit only one time.

We will file in the docket all comments that we receive, as well as a report summarizing each substantive public contact with FAA personnel concerning this proposed rulemaking. Before acting on this proposal, we will consider all comments we receive on or before the closing date for comments. We will consider comments filed after the comment period has closed if it is possible to do so without incurring expense or delay. We may change this proposal in light of the comments we receive.

Discussion

On July 11, 2013, we issued AD 2013-15-03, Amendment 39-17519 (78 FR 44422, July 24, 2013) for Eurocopter France (now Airbus Helicopters) Model AS350B, AS350BA, AS350B1, AS350B2, AS350B3, AS350C, AS350D, and AS350D1

helicopters. AD 2013-15-03 requires visually inspecting the bearing for leaks, rust, overheating, and condition and manually rotating the bearing and inspecting for friction points, brinelling, and noise. If any of these conditions exist, AD 2013-15-03 requires replacing the hydraulic pump drive assembly. AD 2013-15-03 was prompted by six reports of hydraulic pump drive belt failure caused by bearing seizures. These actions are intended to prevent hydraulic pump drive belt failure, loss of hydraulic servo assistance, and subsequent loss of helicopter control.

AD 2013-15-03 was prompted by AD No. 2013-0044-E, dated February 27, 2013, issued by EASA, which is the Technical Agent for the Member States of the European Union, to correct an unsafe condition for Eurocopter France Model AS350B, AS350BA, AS350B1, AS350B2, AS350B3, AS350D, and non-FAA type-certificated Model AS350BB helicopters. EASA advised of hydraulic pump drive belt failures caused by seizure of the bearing. EASA stated that this condition, for helicopters with a single hydraulic system, could lead to loss of hydraulic servo assistance and an increase in pilot workload to the point that the helicopter needs to land as soon as possible. AD No. 2013-0044-E consequently required repetitive inspections of the hydraulic pump drive belt and bearing and, if required, replacing the hydraulic pump drive assembly.

Actions Since AD 2013-15-03 Was Issued

Since we issued AD 2013-15-03 (78 FR 44422, July 24, 2013), EASA superseded AD No. 2013-0044-E with AD No. 2013-0284-E, dated December 2, 2013, which added a new greasing procedure and changed the inspection, reduced the inspection intervals, and required marking the pump support assemblies after corrective action or replacing the pump support assemblies as terminating action. EASA AD No. 2013-0284-E advised that

the hydraulic pump drive failure was caused by accidental indentation of the raceways from incorrect fitting of the bearing. Airbus Helicopters then introduced a new bearing, part number (P/N) 704A33651269, to replace bearing P/N 704A33651243. This replacement corrects the unsafe condition as it has a reduced pre-loading value, which significantly improves its reliability. EASA consequently revised AD No. 2013-0284-E with AD No. 2013-0284R1, dated July 25, 2014, to exclude helicopters that had replaced the bearing with bearing P/N 704A33651269.

Because new cases of hydraulic pump drive bearing seizures continued to be reported on bearing P/N 704A33651243, EASA superseded AD No. 2013-0284R1 with EASA AD No. 2014-0233, dated October 23, 2014, to retain the inspections and require replacement of bearing P/N 704A33651243 with bearing P/N 704A33651269. Installation of the new bearing constitutes terminating action for the repetitive inspections.

FAA's Determination

These helicopters have been approved by the aviation authority of France and are approved for operation in the United States. Pursuant to our bilateral agreement with France, EASA, its technical representative, has notified us of the unsafe condition described in its AD. We are proposing this AD because we evaluated all known relevant information and determined that an unsafe condition is likely to exist or develop on other products of the same type design.

Related Service Information Under 1 CFR part 51

We reviewed Airbus Helicopters Alert Service Bulletin No. AS350-63.00.24, Revision 0, dated October 21, 2014 (ASB), for Model AS350B, AS350BA, AS350BB,

AS350B1, AS350B2, AS350B3, AS350D, and military Model AS350L1 helicopters with a single hydraulic system and a hydraulic pump drive assembly P/N 350A35-0132-00.

The ASB calls for mandatory replacement of bearing P/N 704A33651243 with bearing P/N 704A33651269 and introduces a preventative maintenance operation for bearing P/N 704A33651243 until it is replaced.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Proposed AD Requirements

This proposed AD would require for each bearing with less than 115 hours time-in-service (TIS), before accumulating 150 hours TIS, and for each bearing with 115 or more hours TIS, within 50 hours TIS, and for all helicopters thereafter at intervals not to exceed 150 hours TIS:

- Greasing the bearing, performing a test ground run, and then inspecting for bronze particles all grease that comes out of the bearing during the ground run and all grease around the bearing.
- If there are any bronze particles in the grease, before further flight, replacing the bearing with bearing, P/N 704A33651269. This action would constitute terminating action for the inspections in this AD.

Within 600 hours TIS and thereafter at intervals not to exceed 600 hours TIS, this proposed AD also would require:

- Visually inspecting the bearing for bronze particles in the grease. If there are any bronze particles in the grease, before further flight, replacing the bearing with

bearing, P/N 704A33651269. This would constitute terminating action for the inspections in this proposed AD.

- Manually rotating the bearing and inspecting for a friction point, brinelling, and a noise from the bearing. If there is a hard point, any brinelling, or any noise from the bearing, before further flight, replacing the bearing with an airworthy bearing.

Replacing bearing P/N 704A33651243 with bearing P/N 704A33651269, or replacing hydraulic pump drive assembly P/N 350A35-0132-00 with hydraulic pump drive assembly, P/N 350A35-0132-01, would constitute terminating action for the inspections required by this proposed AD.

Differences Between this Proposed AD and the EASA AD

The EASA AD applies to Airbus Helicopters Model AS350BB helicopters, and this proposed AD would not because the Model AS350BB has no FAA-issued type certificate. This proposed AD would apply to Model AS350D1 and AS350C helicopters, while the EASA AD does not.

Costs of Compliance

We estimate that this proposed AD would affect 729 helicopters of U.S. Registry and that labor costs average \$85 per work hour. Based on these estimates, we expect the following costs:

- Greasing and visually inspecting the bearing would require 1.5 work hours and no parts would be needed. We estimate a total cost of \$128 per helicopter and \$93,312 for the U.S. fleet per inspection cycle.

- Inspecting and manually rotating the bearing would require 2 work hours and no parts would be needed. We estimate a total cost of \$170 per helicopter and \$123,930 for the U.S. fleet per inspection cycle.
- Replacing the bearing would require 2 work hours and \$1,571 for parts, for a total cost of \$1,741 per helicopter and \$1,269,189 for the U.S. fleet.
- Replacing the hydraulic pump drive assembly would require 2 work hours and \$8,543 for parts, for a total cost of \$8,713 per helicopter and \$6,351,777 for the U.S. fleet.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct

effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed, I certify this proposed regulation:

1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction; and
4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared an economic evaluation of the estimated costs to comply with this proposed AD and placed it in the AD docket.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by removing Airworthiness Directive (AD) 2013-15-03, Amendment 39-17519 (78 FR 44422, July 24, 2013), and adding the following new AD:

Airbus Helicopters (Previously Eurocopter France): Docket No. FAA-2015-4031; Directorate Identifier 2014-SW-072-AD.

(a) Applicability

This AD applies to Airbus Helicopters Model AS350B, AS350BA, AS350B1, AS350B2, AS350B3, AS350C, AS350D, and AS350D1 helicopters with a hydraulic pump drive bearing (bearing) part number (P/N) 704A33651243 installed, certificated in any category.

(b) Unsafe Condition

This AD defines the unsafe condition as seizure of the hydraulic pump drive pulley bearing. This condition could result in hydraulic pump drive belt failure, loss of hydraulic servo assistance, and subsequent loss of control of the helicopter.

(c) Affected ADs

This AD supersedes AD 2013-15-03, Amendment 39-17519 (78 FR 44422, July 24, 2013).

(d) Comments Due Date

We must receive comments by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE Federal Register].

(e) Compliance

You are responsible for performing each action required by this AD within the specified compliance time unless it has already been accomplished prior to that time.

(f) Required Actions

(1) For each bearing with less than 115 hours time-in-service (TIS), before accumulating 150 hours TIS, and for each bearing with 115 or more hours TIS, within 50 hours TIS, and for all helicopters thereafter at intervals not to exceed 150 hours TIS:

(i) Grease each bearing in accordance with the Accomplishment Instructions, paragraph 3.B.2.b., of Airbus Helicopters Alert Service Bulletin No. AS350-63.00.24, Revision 0, dated October 21, 2014 (ASB).

(ii) Perform a test ground run. Inspect all grease that comes out of the bearing during the ground run and all grease around the bearing for bronze particles.

(iii) If there are any bronze particles in the grease, before further flight, replace the bearing with bearing P/N 704A33651269. This constitutes terminating action for the inspections in this AD.

Note 1 to paragraph (f)(1)(iii) of this AD: Hydraulic pump drive assembly P/N 350A35-0132-01 is fitted with bearing P/N 704A33651269.

(2) Within 600 hours TIS and thereafter at intervals not to exceed 600 hours TIS:

(i) Visually inspect the bearing for bronze particles in the grease. If there are any bronze particles in the grease, before further flight, replace the bearing with bearing P/N 704A33651269. This constitutes terminating action for the inspections in this AD.

(ii) Manually rotate the bearing and inspect for a friction point, brinelling, and a noise from the bearing. If there is a hard point, any brinelling, or any noise from the bearing, before further flight, replace the bearing with bearing P/N 704A33651269.

(3) Replacing bearing P/N 704A33651243 with bearing P/N 704A33651269, or replacing hydraulic pump drive assembly P/N 350A35-0132-00 with hydraulic pump

drive assembly, P/N 350A35-0132-01, constitutes terminating action for the inspections required by this AD.

(g) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Safety Management Group, FAA, may approve AMOCs for this AD. Send your proposal to: Matt Wilbanks, Aviation Safety Engineer, Rotorcraft Directorate, FAA, 10101 Hillwood Pkwy, Fort Worth, TX 76177; telephone (817) 222-5110; email 9-ASW-FTW-AMOC-Requests@faa.gov.

(2) For operations conducted under a 14 CFR part 119 operating certificate or under 14 CFR part 91, subpart K, we suggest that you notify your principal inspector, or lacking a principal inspector, the manager of the local flight standards district office or certificate holding district office before operating any aircraft complying with this AD through an AMOC.

(h) Additional Information

The subject of this AD is addressed in European Aviation Safety Agency (EASA) AD No. 2014-0233, dated October 23, 2014. You may view the EASA AD on the Internet at <http://www.regulations.gov> in Docket No. FAA-2015-4031.

(i) Subject

Joint Aircraft Service Component (JASC) Code: 2913, Hydraulic Pump (Electric/Engine), Main.

Issued in Fort Worth, Texas, on April 21, 2016.

Scott A. Horn,

Acting Manager, Rotorcraft Directorate,
Aircraft Certification Service.

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